APR/FY06

FORT GREELY

Alaska

Army Defense Environmental Restoration Program Installation Action Plan

Final 12 June 2006

Table of Contents

Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations, necessary remedial actions, and long term maintenance.

In an effort to coordinate planning information between the restoration manager, US Army Environmental Center (USAEC), Fort Greely, executing agencies, and regulatory agencies, an IAP was completed. The IAP is used to track requirements, schedules and tentative budgets for all Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following agencies contributed to the formulation and completion of this Installation Action Plan during a planning workshop held on 6 April 2006:

Company/Installation/Branch
US Army Environmental Center

US Environmental Protection Agency

Teledyne Solutions, Inc.

Engineering & Environment, Inc., for USAEC

USASMDC

ADEC

Acronyms & Abbreviations

A/I	Administrative/Industrial
ACL	Alternative Cleanup Level
ADEC	Alaska Department of Environmental Conservation
AEDB-R	Army Environmental Database- Restoration
AGRA	AGRA, Inc.
ASCG	Artic Slope Combined Group, Inc.
AST	Aboveground Storage Tank
BCT	BRAC Cleanup Team
bgs	below ground surface
BRAC	Base Realignment and Closure
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CANOL	Canadian American Gas Oil Pipeline
CC	Compliance Cleanup
CERFA	Community Environmental Response Facilitation Act
CERCLA	Comprehensive Environmental Response Compensation and Liability Act (1980)
COC	Contaminants of Concern
COPC	Contaminants of Potential Concern
CRTC	Cold Regions Test Center
CTC	Cost-to-Complete
cy	cubic yards
DPDO	Defense Property Disposal Office
DPW	Department of Public Works
DRMO	Defense Reutilization and Marketing Office
DRO	Diesel Range Organics
EBS	Environmental Baseline Survey
ENSR	ENSR, Inc.
EPA	(United States) Environmental Protection Agency
ER,A	Environmental Restoration, Army (formerly called DERA)
FS	Feasibility Study
ft	foot
FTGY	Fort Greely
FUDS	Formerly Used Defense Sites
FY	Fiscal Year
GRO	Gasoline Range Organics
HLA	Harding Lawson Associates
IAP	Installation Action Plan
IRA	Interim Remedial Action
IRP	Installation Restoration Program
K	$1,000
kg	kilograms
L	Liter
lb	pound
LRE	Limited Risk Evaluation
LTM	Long-term Management
MCL	Maximum Contaminant Level

Acronyms & Abbreviations

mg	milligrams
MMRP	Military Munitions Response Program
MW	monitoring well
ND	Non-Detect
NE	Not Evaluated
NFA	No Further Action
NPL	National Priorities List
PA	Preliminary Assessment
PAH	polynuclear aromatic hydrocarbons
PCB	polychlorinated biphenyl
PiC	picoCuries
PID	Photoionization detector
POL	Petroleum, Oil & Lubricants
PCB	polychlorinated biphenyls
PRG	Preliminary Remediation Goals
RA	Remedial Action
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operation)
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
REM	Removal
RI	Remedial Investigation
RIP	Remedy in Place
RRO	Residual Range Organics
RRSE	Relative Risk Site Evaluation
SI	Site Inspection
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Unit
TCE	trichloroethene
TCDD	tetrachloro-dibenzo dioxin
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalents
TOC	Total Organic Hydrocarbons
TP	Test Pit
TPH	Total Petroleum Hydrocarbon
TSI	Teledyne Solutions, Inc
µg/l	microgram per liter
USACE	United States Army Corps of Engineers
USAEC	United States Army Environmental Center (formerly called USATHAMA)
USARAK	United States Army, Alaska
USASMDC	United States Army Space and Missile Defense Command
UST	Underground Storage Tank
UXO	Unexploded Ordnance

Acronyms & Abbreviations

VOC	Volatile Organic Compounds
Yr	Year

Installation Information

Installation Locale: Until recently, under the cognizance of the US Army Alaska (USARAK), Fort Greely comprised 267,519 hectares (661,051 acres) of land, including of the main post, two large training areas (Fort Greely West Training Area and Fort Greely East Training Area) and three outlying sites in the area. In October 2002, the US Army Space and Missile Defense Command (USASMDC) assumed ownership of the restructured Fort Greely from USARAK. This restructured Fort Greely is much smaller (~2,914 hectares [7,200 acres]) and many facilities within it are now vacant. Responsibility for the remainder of the former Fort Greely was transferred to Fort Wainwright, Alaska, and remains under the control of the USARAK (which is now known as the Donnelly Training Area).

Installation Mission: The installation supports the Ground-based Midcourse Defense interceptor deployment and the Cold Regions Test Center. The installation also maintains Allen Army Airfield which is used by GMD and a number of other agencies for miscellaneous activities in the area (USAF training, forest fire fighting, etc.).

Lead Organization:
Installation Management Agency, Pacific Region

Lead Executing Agencies:
Investigation Phase Executing Agency: US Army Space and Missile Defense Command under direction of Fort Greely Directorate of Public Works
Remedial Design/Action Phase Executing Agency: US Army Space and Missile Defense Command under direction of Fort Greely Directorate of Public Works

Regulatory Participation
Federal: US Environmental Protection Agency, Region X
State: Alaska Department of Environmental Conservation, Contaminated Sites Program

NPL Status: Non NPL

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status: RAB was formed in 1996 and meets quarterly. No TAPP has been requested.

Installation Program Summaries

IRP

Contaminants of Concern: VOCs, Metals, Petroleum Hydrocarbons, TCE, PAH, Dioxins
Media of Concern: Soil, Groundwater
Estimated date for RC: 201309
Funding to date (up to FY05): $9,280K
Current year funding (FY06): $761K
Cost-to-Complete (FY07+): $1,680K

MMRP

Contaminants of Concern: Metals, MEC
Media of Concern: Soils, Sediment, Surface Water
Estimated date for RC: 201709
Funding to date (up to FY05): $75K
Current year funding (FY06): $0K
Cost-to-Complete (FY07+): $3,854K

Cleanup Program Summary

Installation Historic Activity

The Fort Greely's entrance is on the Richardson Highway, a paved, two-lane roadway, approximately 100 miles southeast from Fairbanks and approximately 5 miles south of Delta Junction. One major stream flows through Fort Greely: Jarvis Creek (glacier-fed and silt-laden). Other than Fairbanks, which is home to about 50,000 people, no major population centers exist for several hundred miles.

Except for transient explorers and hunters, the area near Fort Greely was not inhabited until about 1915, when roadhouses and trading centers became established with construction of the Richardson Trail (which later became Richardson Highway). During World War II, the military constructed bases and developed several of the state's major highways, including the Alaska Highway in 1942. After completing the Alaska Highway, the Army established a base called Station 17, which was used as a staging field for military operations. Few of the original Station 17 buildings remain at Fort Greely.

Over the years, the post has gradually expanded, and buildings with antiquated or inadequate facilities have been decommissioned and demolished. Fort Greely has supported the Cold Regions Test Center, operations at Allen Army Airfield, several hundred thousand acres of ranges, and numerous other activities through the years.

Fort Greely, Alaska (FGA) has undergone a number of environmental studies and restoration activities dating back to 1978. In 1989, the first stage of the Installation Restoration Program initiated a number of investigations. The first significant study was a Preliminary Assessment (PA) conducted in 1992. Most of the sites were studied and several remediation projects were completed between 1992 and 1995.

In 1995, FGA was selected for realignment under the Base Realignment and Closure (BRAC) Program. The Army subsequently declared 1,700 acres, including most of the cantonment area, surplus. FGA developed a cleanup plan to remediate the sites so that the surplus property would not pose any environmental liabilities to future occupants. BRAC-driven remediation continued through 2002, the scheduled implementation date for FGA realignment. Just prior to this date, the Department of the Army decided to retain previously identified surplus property at FGA and directed the current footprint be transitioned from US Army Alaska (USARAK) to the U.S. Army Space and Missile Defense Command (USASMDC).

The Ground Based Midcourse Defense Joint Program Office (GMD JPO) is the current major tenant on Fort Greely (FGA). The Missile Defense Agency (MDA) has begun fielding of the Ballistic Missile Defense System. Under recent Army initiatives, the Installation Management Agency is responsible for base operations at Army Installations. The former FGA totaled approximately 600,000 acres in size. The current FGA is approximately 7,000 acres. The portions of FGA not transferred to USASMDC are now called Donnelly Training Range and are still under the control of USARAK. USASMDC re-started the IRP following the transfer from USARAK.

Cleanup Program Summary

In June of 2003, USASMDC organized a meeting with past and current environmental personnel involved with FGA to list all sites on Fort Greely where there was suspected or confirmed contamination. A list of 132 sites was developed originating from examination of all BRAC parcels, the U.S. Environmental Protection Agency's Solid Waste Management Units (SWMU) list, the ADEC Contaminated Sites database, and the Army Environmental Database (AEBD-R). An environmental fact sheet was produced for each unique site as a result of the June 2003 meeting and follow-on research. A decision document was produced to close out 73 of the sites in 2005. The remaining 59 sites require additional documentation, investigations, and/or remedial action prior to closeout either under the compliance cleanup program or under the installation restoration program.

IRP

- Prior Year Progress: SI and RI activities were continued and/or initiated on 7 sites. An interim removal action was initiated on one site. Long term monitoring activities were continued on 4 sites.
- Future Plan of Action: Complete investigative activities at 5 sites. Complete interim removal actions at 4 sites. Continue and/or initiate long term monitoring activities at 5 sites. Prepare a proposed plan to select final remedy or close most of the IRP sites.

MMRP

- Prior Year Progress: A Historical Records Report was initiated and a Site Investigation is planned for late FY06.
- Future Plan of Action: Complete SI.

FORT GREELY

Installation Restoration Program

IRP Summary

Total AEDB-R IRP Sites/AEDB-R sites with Response Complete: 71/59

Different Site Types:

2 Above Ground Storage Tanks	2 Burn Areas
3 Contaminated Buildings	2 Contaminated Sediments
1 Contaminated Soil Piles	3 Disposal Pits/Dry Wells
3 Fire/Crash Training Areas	9 Landfills
1 Maintenance Yard	1 Mixed Waste Area
1 Pesticide Shop	2 Radioactive Waste Areas
5 Soil Contaminations after Tank Removal	11 Spill Site Areas
10 Storage Areas	2 Surface Disposal Areas
2 Surface Impoundment/Lagoons	8 Underground Storage Tanks
2 Unexploded Munitions/Ordnance	1 Waste Line

Most Widespread Contaminants of Concern: VOCs, Metals, Petroleum Hydrocarbons, TCE, PAH, Dioxins

Media of Concern: Groundwater, Soil

Completed Removal (REM)/Interim Remedial Action (IRA)/Remedial Action (RA):

1992
IRA, FGLY-002, -036, -037, September
IRA, FGLY-033, December

1994
RA(C), FGLY-002, July
IMP(C), FGLY-034, -035, October
RA(C), FGLY-043, December

1995
IRA, FGLY-027, March
RA(C), FGLY-037, November

1996
RA(C), FGLY-029, September

1999
RA(C), FGLY-049, October

2000
IRA, FGLY-045, September
RA(C), FGLY-047, September

2001
IRA, FGLY-019, September

IRP Summary

Total IRP Funding

Prior years (up to FY05):	$ 9,280K
Current year funding (FY06):	$ 761K
Future Requirements (FY07+):	$ 1,680K
Total:	$11,721K

Duration of IRP

Year of IRP Inception: 1988
Year of IRP RC: 201309
Year of IRP Completion including Long-Term Management (LTM): 201309

IRP Contamination Assessment

IRP Contamination Assessment Overview

As at most facilities, operations at Fort Greely required the use of many types of potentially hazardous substances. Most of the hazardous wastes generated on Fort Greely have historically been spent petroleum products, such as: oil, transmission, brake and hydraulic fluids, fuel and cleaning solvents. Other less used hazardous substances included leaded paint, battery acid, polychlorinated biphenyls (PCBs), rodenticides, insecticides, and herbicides.

Many investigations and removal actions were undertaken as part of the BRAC efforts to close out a portion of Fort Greely in the late 1990s. In 2002, SMDC "reopened" the facility for a ballistic missile defense facility and took over the investigation and remediation activities from USARAK and USACE. Primary focus of recent investigation activities has revolved around the discovery of TCE in the groundwater downgradient of FGLY-006 and benzene in the groundwater upgradient of FGLY-006.

FY05 investigations also revealed significant petroleum contamination at FGLY-100 (South Tank Farm) and a bioremediation effort of the surface contamination was initiated in late FY06. Additional investigation is required of subsurface petroleum contamination at this site.

Four other sites involve the downgradient groundwater monitoring of landfills or past significant petroleum spill sites. Other sites include dioxin and metals contamination at a former refuse burn pit, two former dry cleaning facilities, a former asphalt/tar disposal area, and two small petroleum spill sites.

IRP Cleanup Exit Strategy

The possible removal actions are at FGLY-006 (SVE and/or soil removal), FGLY-100 (soil bioremediation and SVE) and at FGLY-076 (soil removal). Upon completion of removal/remedial actions, sites with contamination remaining above ADEC Method 2 cleanup levels (screening level) will require the development of a site specific ADEC Method 3 alternative cleanup levels. Land use controls have been implemented on all known contaminated sites (part of the Garrison's Dig Permit process) and will be maintained.

Previous Studies

1982

FGLY 045

- Report and Memorandums regarding 132,000-Gallon Fuel Spill, USACE, Dec-82
- Internal Notice: Pollution Incident Report 44,000 Gallon Spill, US Army, Jan-82

1983

- Installation Assessment of the HQ, 172d Infantry Brigade, Ft Greely, For the Commander, Headquarters, 172d Infantry Brigade (Alaska), Ft Richardson, AK, and U.S. Army Toxic and Hazardous Materials Agency, (DRXTH - AS - IA - 82328C), Fort Greely, Jan-83
- Analysis of Existing Facilities/Environmental Assessment Report, Ft Greely, AK Preliminary, Unwin, Scheben, Korynta, and Huettl, Inc. (USKH), 1983
- Evaluation of Solid Waste Disposal Practices, Ft Greely, US Army Environmental Hygiene Agency, 1983

1990

- Waste Site Locations, Ft Greely Cantonment Area, Delta Junction, U.S. Army Toxic and Hazardous Materials Agency, 1990
- Installation Restoration Program, Stage 1, Joint Resources Project, Ft Richardson, Wainwright and Greely, Site 4, Fire Training Pits, Volumes 4, 5, and 6, For Alaskan Air Command HQ ACC/DEP, Elmendorf AFB, and U.S. Army Directorate of Engineering and Housing AFVR - DE, Ft Richardson, Woodward-Clyde Consultants, 1990

FGLY 06

- RCRA Facility Assessment PR/VSI Report, SAIC, Jan-90

FGLY 07

- RCRA Facility Assessment (PR/VSI) Report, SAIC, Jan-90

FGLY 010

- RCRA Facility Assessment PR/VSI Report, SAIC, Jan-90

1991

- Groundwater Monitoring Network, Ft Greely, U.S. Army Corps of Engineers, COE, Aug-91

1992

- Progress Report for the Confirmation of Fire Training Pits at Ft Richardson and Greely, Ecology and Environment, Inc. (EEI), Feb-92
- Preliminary Assessment, Ft Greely, CH2MHiII, Sep-92

FGLY 06

- Fire Training Pits Work Plan, Pt 1, Ft Richardson & Greely, E&E, Aug-92
- Fire Training Pits Work Plan, Part 2, Subsurface Exploration Plan, Ft Richardson and Greely, E&E, Feb-92

1993

- Site Inspection Report for Fire Training Pits at Ft Richardson and Greely, EEI, Sep-93
- Workplan for the Remediation of Contaminated Soil Piles at Ft Richardson, Wainwright and Greely, EEI, Sep-93

Previous Studies

1994

- Sampling Report for Groundwater Monitoring Network at Ft Greely, Volume II, Fort 6th Infantry Division (L), Public Works, Environmental Resources Department, Ft Richardson, ENSR, Consulting and Engineering, Jan-94
- Corrective Action Plan Release Investigation, Ft Greely, Volumes I and II, Harding Lawson Associates, May-94
- Remedial Design Investigation, Oil & Tar Burial Site, Ft Greely, Contract No. DACA85-94-D-005, Delivery Order No. 0001, Woodward-Clyde Consultants, Jun-94
- Site Health and Safety Plan, Building 110 Remedial Investigation and Design, Ft Greely, DACA85-94-D001, AGRA Earth & Environmental, Inc, Sep-94
- Chemical Data Report, Spring 1994, Groundwater Monitoring, Ft Greely, COE, Sep-94
- Geotechnical Report, Groundwater Monitoring Network for Ft Greely, , Sep-94
- Remedial Design Investigation, Oil & Tar Burial Site, Ft Greely, Contract No. DACA85-94-D-005, Delivery Order No. 001, Woodward-Clyde Consultants, Nov-94
- Post-wide Site Inspection, Ft Greely, Contract No. DACA85-94-D-005, Delivery Order No. 0008, Woodward-Clyde Consultants, Nov-94

  FGLY 06
- Site Assessment/Corrective Action Plan, Three Former Fire Training Pits, USAED, Mar-94
- Environmental Assessment and Finding of No Significant Impact, Remedial Treatment of Petroleum Contaminated Soils, Fire Training Pits, USAED, Apr-94

1995

- Final Respiration Test Report: Fire Burn Pits Treatment System, Ft Greely, Contract No. DACA85-94-D-001 1, AGRA Earth & Environmental, Inc, Mar-95
- Final Site Inspection Letter Report: Building 110, Ft Greely, Contract No. DACA85-94-D-001 1, Delivery Order No. 0003, AGRA Earth & Environmental, Inc, Mar-95
- Remedial Design Investigation Phase II: Oil & Tar Burial Site, Ft Greely, Contract # DACA85-94-005, Delivery Order No. 0001, Woodward-Clyde Consultants, Apr-95
- Work Plan Addendum: Ft Greely Postwide Site Inspection, Contract No. DACA85-94-D-005, Delivery Order No. 008, Woodward-Clyde Consultants, Apr-95
- Schematic Submittal: Repair Bulk Fuel Storage Tanks (Tank 420), DFSP Ft Greely, Contract No. N62472-93-D-1302, For Northern Division Naval Facilities Engineering Command, Lester, Pennsylvania., Enterprise Engineering, Inc, Jun-95
- Workplan: Post-Wide Site Inspection, Ft Greely, Contract No. DACA85-94-D-005, Delivery Order No. 0008, Woodward-Clyde Consultants, Jun-95
- Ft Greely Post-wide SI, Contract No. DACA5794-D-0012, Sound Analytical Services, Inc., Jul-95
- Ft Greely Post-wide SI, Work Order No. 95-0202, Columbia Analytical Services, Jul-95
- Ft Greely Post-wide SI, Work Order No. 95-0202, Columbia Analytical Services, Jul-95
- Ft Greely Post-wide SI, Work Order No. 95-0202, Columbia Analytical Services, Jul-95
- Ft Greely Post-wide SI, Work Order No. 95-0202, Columbia Analytical Services, Jul-95
- Ft Greely Post-wide SI, Work Order No. 950202, Columbia Analytical Services, Aug-95
- Investigation Report: Confirmation Drilling Buildings 162 and 606, Ft Greely, Contract No. DACA85-94-D-001 1, Delivery Order 5, AGRA Earth & Environmental, Inc, Nov-95

1995 (cont.)

- Remedial Design Investigation Report, Building 110, Ft Greely, Contract No. DACA85-94-D-0011, Delivery Order 3, AGRA Earth & Environmental, Inc, Dec-95
  FGLY 06
- Final Remedial Design Report, Contract No. DACA85-94-D-0011, Fire Burn Pits Treatment System, AGRA, May-95

1997

- Final Release Investigation Report, North Delta Tank Farm, Delta Junction, Contract # DACA85-94-D-0009, Delivery Order 12, Modification # 0001, Shannon and Wilson, Inc., Sep-97
  FGLY 06
- U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Woodward-Clyde Consultants, Jan-97
  FGLY 07
- U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Woodward-Clyde Consultants, Jan-97
  FGLY 010
- U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Woodward-Clyde Consultants, Jan-97
  FGLY 045
- Oil Discharge Prevention and Contingency (ODPC) Plan, USACE U.S. Army Base Realignment and Closure 95 Program, Environmental Baseline Survey Report, Woodward-Clyde Consultants, Jan-97

1998

- Draft Report on Soil Vapor Extraction System Monitoring, Remedial Investigation and Design, Bldg 110, Ft Greely, Contract No. DACA85-94-D-001 1, Delivery Order No. 003, AGRA Earth & Environmental, Inc, Jul-98
  FGLY 06
- Remedial Design Investigation Report, Former Fire Burn Pits, AGRA, Jul-98
  FGLY 010
- 1997 Site Investigation/Limited Remedial Investigation Report, Jacobs, Sep-98
  FGLY 045
- 1997 Site Investigation/Limited Remedial Investigation Report, Jacobs, Sep-98

1999

- Final Report on Confirmation Soil Sampling, RI and Design, Building 110, Ft Greely, AGRA Earth & Environmental, Inc, Apr-99
  FGLY 06
- 1998 Remedial Investigation Report, Final, Jacobs, Apr-99
  FGLY 010
- 1998 Remedial Investigation Report, Jacobs, Apr-99
  FGLY 045
- 1998 Remedial Investigation Report, Jacobs, Apr-99

Previous Studies

2000

FGLY 006

- Summary Report, 1999 Remedial Investigation/Removal Action, Radian/Jacobs, Aug-00

FGLY 007

- Summary Report, 1999 Remedial Investigation / Remedial Action, Jacobs, Aug-00

FGLY 010

- 1999 Remedial Investigation/Removal Action, Jacobs, Aug-00

FGLY 045

- Summary Report, 1999 Remedial Investigation/Removal Action, Jacobs, Aug-00

2001

FGLY 010

- Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Jacobs, Apr-01

FGLY 045

- Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Jacobs, Apr-01
- Limited Risk Evaluation, Jacobs, Nov-01
- Summary Report, 2000 Remedial Investigation/Removal Action, Jacobs, Dec-01

2002

FGLY-006

- Soil Evaluation and Risk Assessment, Sites: 85 South, 85 North, 133, and 112, USAED, Dec-02

2003

MULTIPLE SITES

- Cumulative Chemical and Radiological Data Report, 1983-2003, Groundwater Monitoring, USACE, Jul-03

FGLY-045

- Limited Risk Evaluation, Jacobs, Nov-03

FGLY-100

- Former South Tank Farm Soil Investigation Summary, Artic Slope Combined Group, Nov-03

2004

FGLY-075 and Multiple Sites

- Class V Underground Injection Control Inventory Report, USACE-AK District, Apr-04

FGLY-006 and Multiple Sites

- Comprehensive Evaluation of Groundwater Monitoring Program, Midwest Environmental Consultants, Jul-04

FGLY-006 and Multiple Sites

- Groundwater Sampling and Analysis Report, Shannon & Wilson, Oct-04

2004 (cont.)

FGLY 017/018/019

- SM-1A 2003 Surveillance Report, General Health Physics, Inc, Mar-04
- SM-1A Reactor Waste Laydown Yard Verification Survey Report, USACE, Aug-04
- SM-1A Reactor Waste Pipeline Corridor Verification Survey Report, USACE, Aug-04

2005

FGLY-006, and Multiple Site groundwater monitoring

- 2004 Field Investigation Report, Artic Slope Technical Services (ASTS), May-05
- Groundwater Monitoring and Data Analysis Workplan, ASCG, May-05
- 2005 Installation Restoration Program Workplan, ASCG, May-05

FGLY-100

- South Tank Farm Corrective Action Plan, ASCG, Dec-05

FGLY-018

- SM-1A 2004 Environmental Surveillance Report, General Health Physics, Mar-05

MULTIPLE SITES

- Environmental Sites Decision Document, TSI, June-05

2006

FGLY-006, FGLY-100, FGLY-050, FGLY-075, FGLY-076 and Multiple site gw monitoring

- Draft 2005 Remedial Investigation Report, ASCG, Feb-06

FGLY-100, FGLY-019, FGLY-027, FGLY-032, FGLY-076 and Multiple site gw monitoring

- Draft 2006 Installation Restoration Program Workplan, ASCG, May-06

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Installation Restoration Program
Site Descriptions

FGLY-006
FIRE TRAINING AREA - SITE 85/133

SITE DESCRIPTION

Site 85N is located north of the east end of the west taxiway of Allen Army Airfield. The site is located about 500 ft south of the centerline of the east-west runway. The site was previously a depression with a rectangular pit located near the center. The site was used as an apparent storage area for materials/liquids used in fire training. Drums were previously stored on the southwestern side of the pit according to 1969 aerial photographs. The water table is roughly 180 bgs. During summer 2002, soil was placed atop the area of contamination to reduce exposure potential. An inactive former biovent system was removed in FY05.

Site sampling occurred in 1991, 1992, 1994, 1995, 1995-1997 (landfarm samples) and 1998. Since this was a fire training area, contaminants of concern included petroleum fuels, VOCs, solvents and potentially metals. TCE has been detected in groundwater above action levels at a downgradient location.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: VOCs, Petroleum Hydrocarbons

MEDIA OF CONCERN: Soil, Groundwater

PHASES	Start	End
PA	199206	199210
SI	199206	199210
RI/FS	199306	200709
IRA	199410	200809
RA(C)	200805	201309

RC: 201309

In summer FY04, a passive soil gas survey was conducted and showed 3 upgradient areas requiring further investigations as well additional contamination at BRAC 85 South. Subsequent sampling activities in FY05 (borings/sampling) did not find a TCE source area remaining in the vadose zone. The possible TCE source areas have been investigated without finding any remaining contamination, leading the Army to believe that previous interim removal actions at 85N/S (bioventing and excavation) have remediated the source areas. One of the upgradient areas investigated (near a bend in the Old Post diesel pipeline) showed elevated levels of DRO/GRO at depths of 10-50 feet bgs which may require remediation.

CLEANUP STRATEGY

Petroleum source removal by SVE and long-term monitoring of the TCE plume is likely to be needed. Develop an ADEC Method 3 soil cleanup level to show the exceedence of the Method 2 cleanup level do not pose a risk. A no further remedial action decision document will be completed once the alternate cleanup level is established. Land Use Controls are implemented and will be maintained.

FGLY-007
LANDFILL 1 - SITE 31

SITE DESCRIPTION

This site is located within the Northwest Undeveloped Geographic area. Per the EBS, the landfill was closed prior to 1953. Landfill #1 was identified as SWMU No. 38 in 1990. The types and quantities of waste in the landfill are unknown. The landfill is believed to have accepted sanitary wastes. The size and start date are also unknown; it is believed that it closed prior to 1953.

During 1999, two groundwater monitoring wells were installed downgradient of Site 31 (31/32/112-MW-A and 32-MW-A) and one was installed up-gradient (31-MW-A). Low levels (below MCLs) of chlorinated hydrocarbons have been detected in the groundwater.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Low level Metals, VOCs

MEDIA OF CONCERN: Soil, Groundwater

PHASES	Start	End
PA	199206	199210
SI	199906	200003
LTM	200110	201009

RC: 200003

Since installation, periodic samples from well 31/32/112-MW-A have contained carbon tetrachloride, chloroform, and trichloroethylene at levels less than MCLs. Each of these analytes has been detected on 2 of 4 sampling events. The groundwater monitoring has found no contaminants above MCLs since 2001. Groundwater monitoring was switched to two sampling events only on even years in 2004.

CLEANUP STRATEGY

Groundwater monitoring will continue every other year until closure. Closure documentation will be pursued through ADEC beginning in late FY06. Land Use Controls have been implemented and will be maintained.

FGLY-010

LANDFILLS 4 AND 5 - SITE 88 (LOW) (PAGE 1 OF 2)

SITE DESCRIPTION

This site is located primarily in the Northeast Industrial Area. Landfills 4 and 5 were identified as SWMUs No. 42 and 39. They are believed to have accepted sanitary wastes, metals, and ashes, which were buried in trenches. The landfills operated in the 1960s. Per the EBS, Landfill #4 was closed in 1969 and Landfill #5 was closed prior to 1962. Currently, the area serves as a picnic area and a skeet shooting range.

The EBS classified this site as Category 7 - additional evaluation was needed. The site was evaluated by reviewing various hazardous waste management compliance reports dated 1987-1995.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Metals, TCE

MEDIA OF CONCERN: Soil, Groundwater

PHASES	Start	End
PA	199206	199210
SI	199708	200009
RI/FS	200403	200409
LTM	200410	201009

RC: 200409

Field activities were conducted in 1997. The results of the survey indicated the presence of 15 discrete magnetic anomalies. Trace pesticides were detected, all well below ADEC Method Two cleanup levels. The 1997 report recommended further geophysical survey to delineate anomalies, and additional test pit excavation and sampling.

Additional geophysical survey and groundwater sample collection was conducted during 1998. UXO was a suspected COC, potentially located in a former trench located south of Post Road. Test pits were not excavated due to potential UXO concerns. The geophysical survey identified several anomalies that appeared to be associated with discrete metallic objects. The BCT reviewed former disposal practices and determined the landfill features were associated with solid waste disposal, and decided further investigation of UXO was not warranted.

Two wells were installed downgradient, and a third was installed upgradient in 1999. During the 1999 sampling, DRO was detected in all three wells at 0.2 to 0.35 mg/l (all nine wells sampled during that event contained reported DRO concentrations). In 1999, Bis(2ethylhexyl)phthalate exceeded the MCL and has not been detected since. Trichloroethylene, chloroform, and 1,1,2,2-tetrachloroethane have been detected on three sampling events since well installation at levels less than MCLs. No contaminants have been detected above the MCLs in semi-annual sampling since well installation in 1999.

In summer 2004, a passive soil gas survey for downgradient was conducted and did not show the need for any further evaluation.

FGLY-010
LANDFILLS 4 AND 5 - SITE 88 (LOW) (PAGE 2 OF 2)

CLEANUP STRATEGY

Groundwater monitoring will continue until closure. Closure documentation will be pursued through ADEC beginning in late FY06. Land Use Controls have been implemented and will be maintained.

FGLY-019
SM1A PIPELINE REMOVAL - SITE 90/132

SITE DESCRIPTION

This site is a former Reactor waste dilution/discharge pipeline. The excavation of approximately 1,700 cubic yards of contaminated soil and debris and removal of the pipeline was completed in Aug 1999. It was stored temporarily in a secured lot on Fort Greely pending ultimate disposition. Shipment of the waste to a disposal facility in Utah was completed in FY01. Maximum soil contamination was 517 picoCuries/g cesium-137 and 290 picoCuries/g strontium-90 (1997-1998 Draft Field Report, Removal of SM-1A Radioactive Waste Pipeline, Jan 1999). Final confirmation sampling (FY98 funds) of the pipeline corridor was done in FY00.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Petroleum Hydrocarbons

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA	199206	199210
SI	199206	199709
RI/FS	199908	200709
IRA	199708	200109

RC: 200709

At the end of FY98, the dilution well associated with this pipeline was sampled and found to contain 49.9 pCi/g strontium-90, which is more than 6 times the MCL for this contaminant. The source was a slug of contaminated soil in the bottom of the well. In September 1999, the well was cleaned, purged, and sampled. Results show strontium levels are now well below MCLs. Quarterly samples were taken until August 2000 (all below MCLs) and the well was abandoned per the workplan. Final Cleanup report was submitted to ADEC/EPA in fall of 2004. State reviewed in 2nd quarter FY05. Comments are being addressed by USACE Omaha District.

Station 21+25 (referring to distance along pipeline) has POL contamination that requires further characterization prior to closeout. Investigation of the POL contamination will be initiated in late FY06 (Summer of 2006).

CLEANUP STRATEGY

Characterize POL contamination in soils and prepare no further remedial action decision document (if POL contamination found above ADEC Method 2 Cleanup levels, prepare ADEC Method 3 Alternative Cleanup Level).

FGLY-027

FORMER ASPHALT & TAR DISPOSAL (PAGE 1 OF 2)

SITE DESCRIPTION

The former Asphalt Tar Disposal Area is located on the west side of the Allen Army Air Field north of the cantonment area. The site contains areas previously used for tar and asphalt disposal.

The site is approximately 10 to 20 acres and consists of at least three gravel turnouts that were used as tar and drum disposal areas, and a central unpaved access road that loops off the northeast-southwest runway. At the time of the Preliminary Assessment (PA) the site contained pools of asphalt tar approximately 20 ft in diameter, three timber cribs filled with tar, narrow gauge rails and pipes stuck in tar, drums, cables, pipes, and a buried pump, and chunks of graveled asphalt debris. The site was probably active in the 1950s during runway expansion and upgrades.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Petroleum Hydrocarbons, PAH

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA	199206	199212
SI	199206	199212
RI/FS	199311	200709
IRA	199311	199503

RC: 200709

Five potential source areas of contamination are present at the site: four asphalt disposal areas and one drum/asphalt burial area. Woodward-Clyde conducted an investigation of the site in 1994. Test pits were excavated at all four Asphalt Disposal Area and soil samples were collected at 6 in. and 4 ft below ground surface (bgs). Samples for DRO, GRO, VOCs, SVOCs, Pesticides, and PCBs were below ADEC Method Two cleanup levels at all four disposal areas. Geophysical survey was conducted at Asphalt Disposal Area No. 2 and 4, including Electromagnetics (EM), Ground-Penetrating Radar (GPR), magnetometer, and surface resistivity.

The study area at Area 2 was 220 by 265 ft. A wooden railroad tie system was present in this source area, and asphalt/tar extended to 2.5 to 3.0 ft deep. Geophysical survey results suggest this area was once a borrow area up to 30 ft deep that was filled with soil and debris. Geophysical survey was conducted at Area 4, resulting in identified anomalies. One test pit was excavated to investigate an anomaly, and drums were encountered directly beneath the surface. The test pit was terminated and backfilled without sampling.

Six borings were drilled at the Drum/Asphalt Disposal Area, each to 20 ft bgs. Twenty-five samples were collected. Samples for DRO, GRO, VOCs, SVOCs, pesticides, and PCBs were below ADEC Method Two cleanup levels. This source area was also investigated by geophysical survey, including EM, GPR, magnetometer, and surface resistivity. The investigation area was 300 by 360 ft. The results suggest the site was used as a borrow

FORMER ASPHALT & TAR DISPOSAL (PAGE 2 OF 2)

area, and then as a landfill after borrow material was removed. The depth of the borrow area/landfill was approximately 35 ft.

No further action was recommended for Asphalt Disposal Areas No. 1 and 3. Additional investigation was recommended for Asphalt Disposal Areas No. 2 and 4 to better define the limits of impact and buried materials at the source areas. Deeper drilling was recommended for the Drum/Asphalt Burial Area. Investigations in Areas 2 and 4 will be initiated in late FY06 (Summer 2006).

CLEANUP STRATEGY

Characterize contamination and prepare no further remedial action decision document (if contamination found above ADEC Method 2 Cleanup levels, prepare ADEC Method 3 Alternative Cleanup Level).

FGLY-032
BLDG 626 AUTO/CRAFT SHOP/DRUM STORAGE

SITE DESCRIPTION

Building 626 was the automobile and hobby shop. A release from a drum was identified in 1991. Waste solvents were reportedly dumped south of Building 626. An assessment completed by ENSR in 1996 indicates DRO levels to 21,000 mg/kg and TPH to 25,000 mg/kg in soil at the storage yard. In 1997, the EBS investigated the release from a drum and the potential dumping of materials in the waste accumulation area. A total of 6 borings were completed to a depth of approximately 4.5 feet just inside of the fenced area. Samples were collected at the surface (2 to 4 inches), from about 4 inches to 2.5 feet, and from 2.5 feet to about 4.5 feet. Samples were analyzed for concentrations of volatile organic compounds (VOCs), diesel range organic (DRO) compounds, total recoverable petroleum hydrocarbons, and 8 RCRA metals.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN:
Petroleum Hydrocarbons

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA	199206	199212
SI	199206	200709

RC: 200709

No VOCs or metals were detected above regulatory limits. DRO concentrations in excess of the ADEC Method 2 Cleanup Level of 250 parts per million (ppm) were reported in the surface and near surface samples collected from 5 borings at concentrations of 6700, 440, 400, 21000, and 560 ppm. The sample from 4 inches to 2.5 feet below the surface detection of 21000 ppm had a concentration of 3800 ppm. All of the DRO results indicate the presence of a product that is heavier than standard diesel fuel. This product is probably a lubricating or other heavy oil and is the source of the high DRO detections. Total recoverable petroleum hydrocarbon concentrations in excess of ADEC Cleanup Level of 2000 ppm were reported in the samples collected at and near the surface in 2 borings with a maximum concentration of 25000 ppm. Confirmatory sampling will be initiated in late FY06 (Summer 2006) to determine if remediation required.

CLEANUP STRATEGY

Confirm (or deny) that elevated contaminant levels remain at the site. Soil removal at the site may be needed. Prepare ADEC Method 3 Alternative Cleanup level for residual contamination and prepare no further action (or no further remedial action) decision document.

FGLY-045

ROBIN ROAD FUEL SPILL - SITE 30 (PAGE 1 OF 2)

SITE DESCRIPTION

This site is a former diesel fuel release from an aboveground pipeline. The pipeline was located along a power line right-of-way ~0.25 miles west of Robin Road. This site is located within the Northwest Undeveloped Geographic Area. Between 52,000 and 133,000 gallons of diesel product were spilled in December 1982. The spill spread 325 ft east of the source and 50 ft west. Borings drilled within a week of the fuel spill indicated fuel contamination had penetrated to at least 50 feet bgs. In January 1983, impacted soil was excavated 3 to 4 ft bgs over an ~7,500 sf area. The disposal method and location of the excavated soil is not known. Seven groundwater monitoring wells were installed at and downgradient of the spill. This site was sampled in 1997 and 1998. The report indicated 6,600 sf of impacted surface soil, as well as a larger zone at 40 to 50 ft bgs, resulting from lateral migration above a silt-rich layer. DRO-impacted soil extended to about 70 ft beneath the spill location. Based on corrected results, DRO ranged up to 10,100 mg/kg. GRO and BTEX levels were also elevated.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Low level Metals, Petroleum Hydrocarbons

MEDIA OF CONCERN: Soil, Groundwater

PHASES	Start	End
PA	199510	199610
SI	199702	199806
RI/FS	199702	200009
IRA	199910	200009
LTM	200110	201309

RC: 200009

Documentation suggests that spilled fuel thawed the frozen soils at the spill site, leached downward through coarse soils until reaching silt-rich soils at ~40 ft bgs, then spread laterally along the upper interface of the silt-rich layer and soaked into the upper zone of the silt-rich layer. Vertical migration into the silt-rich layer was greatest directly beneath the spill location, extending to ~70 ft bgs. Approximately 3,050 cy of soil was excavated from the site in summer 1999. Of this, about 1,070 cy was clean and was staged adjacent to the excavation, 220 cy was suspected of being impacted and was staged at the excavation, and 1,760 cy was believed to be POL-contaminated and was transported and stockpiled near the active Landfill. Analytical results for much of this latter material indicated it was not impacted above cleanup levels; it was later returned to the excavation in summer 2000.

During summer 2000, an additional 90 cy of contaminated soil was removed to address xylene detections above ADEC health-based criteria. The excavation was then backfilled. Contaminated soil excavated from the site was thermally processed in 2000 by a mobile thermal processor set up at the stockpile area near the landfill. Based on the results of sampling at the site, it met ADEC Method Two health-based cleanup levels (ingestion & inhalation) down to a depth of 15 ft bgs. Leachability modeling was then conducted under

ROBIN ROAD FUEL SPILL - SITE 30 (PAGE 2 OF 2)

the LRE to address contaminants remaining at the site that exceeded ADEC Method Two migration to groundwater cleanup levels. The results of the modeling indicated that contaminant breakthrough at levels exceeding MCLs is not expected to occur at the site. ADEC has not accepted the LRE conclusions and is not confident the modeling is reflective of actual site conditions. Work on FGLY-006 will be used to try to validate the SESOIL model. The groundwater monitoring has found no contaminants above MCLs since 2001.

CLEANUP STRATEGY

Groundwater monitoring will continue biannually until closure. Develop an ADEC Method 3 alternative cleanup level to show the exceedence of the Method 2 cleanup level do not pose a risk. A no further remedial action decision document will be completed once the alternate cleanup level is established. Land Use Controls are implemented and will be maintained.

FGLY-046
EVERGREEN ROAD FUEL SPILL - SITE 73

SITE DESCRIPTION

This site is a former diesel fuel release located ~300 ft south of the intersection between Evergreen Road and 64th Avenue. This site is located within the Old Post Geographic Area. The site is ~64,830 sf. The release occurred in January 1982, when a tracked vehicle crossed and broke a 3-inch diesel fuel line. Documents conflict regarding whether the line was above or below ground. Because documentation references removal of diesel contaminated snow, it is assumed the pipe was aboveground. An estimated 44,000 gallons was released. The pipeline has not been used since 1983.

An unknown volume of impacted soil was removed in the spring of 1982 and replaced with Jarvis Creek gravel. The disposal location of the impacted soil is unknown.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Petroleum Hydrocarbons, Metals

MEDIA OF CONCERN: Soil, Groundwater

PHASES	Start	End
PA	199510	199510
SI	199702	199806
RI/FS	199702	200009
LTM	200110	201309

RC: 200009

The site was investigated in 1997 and 1998. In 1997, DRO levels ranged up to 26,000 mg/kg, GRO up to 7,600 mg/kg, benzene up to 5 mg/kg, and xylenes up to 327 mg/kg. Napthalene was detected at 100 mg/kg. In 1998, DRO ranged up to 1,600 mg/kg, GRO up to 2,600, benzene to 6.1 mg/kg, and xylenes to 190 mg/kg.

Documentation suggests that spilled fuel thawed the frozen soils at the spill site, leached downward through coarse soils until reaching silt-rich soils ~30 ft bgs, then spread laterally along the upper interface of the silt-rich layer and soaked into the upper zone of the silt-rich layer. Vertical migration into the silt-rich layer was greatest at a location ~70 ft west of the spill location where fuel may have puddled. Vertical migration above ADEC Method Two cleanup levels extended to at least 70 ft bgs.

Two groundwater monitoring wells were installed in 1999 associated with Site 73; one well (73-MW-A) very near the spill location on the downgradient side, and the other (73-MW-B) ~400 ft upgradient (southwest) of the spill site. Data collected during drilling these wells indicates analyte concentrations did not exceed ADEC Method Two cleanup levels.

Leachability modeling was then conducted. None of the site characterization sample results from the upper 15 feet exceeded ADEC Method Two ingestion and inhalation cleanup levels. The results of the modeling indicated that contaminant breakthrough at levels exceeding MCLs is not expected to occur at Site 73. Groundwater samples have never had detections above MCLs.

FGLY-046
EVERGREEN ROAD FUEL SPILL - SITE 73

CLEANUP STRATEGY

Groundwater monitoring will continue biannually until closure. Develop an ADEC Method 3 alternative cleanup level to show the exceedence of the Method 2 cleanup level do not pose a risk. A no further remedial action decision document will be completed once the alternate cleanup level is established. Land Use Controls are implemented and will be maintained.

FGLY-050

BLDG 157 LAUNDRY - SITE 103 (PAGE 1 OF 2)

SITE DESCRIPTION

Pursuant to Fort Greely being selected for BRAC, an EBS was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 103 as a CERFA Category 7 parcel. Category 7 was defined as: Areas that are not evaluated or require additional evaluation.

Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Metals

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA	199601	199701
SI	199702	199711
RI/FS	199806	200709

RC: 200709

Building 157 had been demolished prior to the 1997 BRAC field investigation. A geophysical survey was conducted in 1997. Four distinct anomalies were identified (A1 through A4). One test pit was excavated at anomaly A1. This was found to be buried concrete with rebar. Samples were not analyzed. Two test pits were excavated at anomaly A2, which was found to be comprised of 2 USTs and associated buried piping. The test pit excavations were stopped upon encountering the tanks.

Investigation was continued by then drilling four borings (AP-817 through AP-819 and AP-847) at the tank locations. Samples were collected at 10 ft bgs and analyzed for DRO, RRO, GRO, BTEX, SVOCs, VOCs, PCBs, and RCRA metals. DRO was detected up to 2,700 mg/kg; this exceeds the current ADEC Method Two migration to groundwater cleanup level. Methylene chloride was detected above the ADEC Method Two migration to groundwater cleanup level, but below the screening level in use at the time of the work. All other analyte concentrations were below ADEC Method Two cleanup levels.

The USTs (Tanks #398 and #400) were removed in 1998. POL-impacted soil was observed during the removal. DRO up to 2,700 mg/kg was reported in soil beneath UST No. 400 at 12 ft bgs.

Three additional soil borings (AP-887, AP-888, and AP-889) were drilled in 1998 to investigate the extent of contaminant migration. Soil samples were analyzed for DRO, GRO, RRO, BTEX, and PAH. POL concentrations were detected in samples from 20 to 36 ft bgs; however all detections were well below ADEC Method Two cleanup levels. DRO concentrations at these depths ranged from ND to 160 mg/kg. RRO concentrations ranged from ND to 150 mg/kg. GRO and BTEX were not detected. Two PAH constituents, phenanthrene and 2-methylnapthalene were detected at AP-887 at 20 to 22 ft bgs at concentrations below ADEC Method Two cleanup levels.

FGLY-050
BLDG 157 LAUNDRY - SITE 103 (PAGE 2 OF 2)

In the summer of 2004 an additional investigation was initiated at this site. Soil gas survey showed no VOC contamination and minor TPH contamination. Additional record search showed the dry well had been removed.

CLEANUP STRATEGY

An ADEC Method 3 alternate cleanup level will be developed to show the exceedence of the Method 2 cleanup level does not pose a risk. A no further remedial action decision document will be completed once the alternate cleanup level is established. Land Use Controls are implemented and will be maintained.

FGLY-075
BLDG 675 LAUNDRY (54) (PAGE 1 OF 2)

SITE DESCRIPTION

Pursuant to Fort Greely being selected for BRAC, an EBS was conducted to ascertain the environmental condition of property for all surplus parcels on the installation. The EBS listed Parcel 54 as a CERFA Category 7 parcel. Category 7 was defined as follows: Areas that are not evaluated or require additional evaluation.

Based on EBS Table 5-1a and Table 2-1, the site was evaluated by reviewing various environmental compliance reports and other available documentation dated between 1987 and 1995.

As-built drawings were reviewed in 1997 to attempt to find the locations of the dry well and AST vault. A geophysical survey was also conducted in an attempt to locate the dry well. The dry well location was not definitively determined because of the interference from buried utilities. The AST vault was also not found during the geophysical survey.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: VOCs, Petroleum Hydrocarbons

MEDIA OF CONCERN: Soil, Groundwater

PHASES	Start	End
PA	199708	199710
SI	199806	200009
RI/FS	200501	200709

RC: 200709

In 1997, two soil borings were drilled and one test pit was excavated at the approximated AST vault location. The AST vault was found when digging the test pits. Samples were analyzed for VOCs and BTEX. Trace concentrations of VOCs were detected, well below ADEC Method Two cleanup levels. The AST vault was not investigated further under BRAC.

During 1998, additional investigation was conducted to address the reported dry well. One test pit was excavated to 11 ft bgs very near the approximated dry well location. The dry well drain line was encountered in the test pit. Power poles and guy wires prevented digging directly at the dry well location. Samples were collected and analyzed for VOCs. No VOCs were detected. The 1998 report recommended additional investigation of the dry well itself.

During 1999, one soil boring was drilled to 37 ft bgs at the dry well location. This was facilitated by the Fort Greely DPW allowing a power disruption at the nearby power pole. Photoionization detector (PID) field screening results appeared to increase with depth. Drilling was stopped because of time constraints implemented by DPW associated with the power disruption at the nearby pole. Samples were analyzed for VOCs and SVOCs. Toluene, napthalene, and phthalates were detected at concentrations below ADEC Method Two cleanup levels. The 1999 BRAC report recommended NFA status for the entire site, including the dry well and AST vault.

FGLY-075
BLDG 675 LAUNDRY (54) (PAGE 2 OF 2)

In 2004, the regulators requested that additional investigation be completed at this site. Investigation in FY05 (utilizing directional drilling to sampled under the dry well) revealed no contamination exceeding ADEC Method 2 cleanup levels.

CLEANUP STRATEGY

A no further action decision document will be completed.

FGLY-076

REFUSE BURN PIT - SITE 89 (PAGE 1 OF 2)

SITE DESCRIPTION

Three test pits (TP-844, TP-845, and TP-846) were excavated at the site in 1997: one each at the loading areas of two incinerators, and the third at a depression about 100 ft northeast of the incinerators. Samples were analyzed for DRO, RRO, SVOCs, VOCs, and metals. Samples from the areas of the two incinerators were below ADEC Method Two Cleanup Levels. However, elevated metals concentrations were detected at TP-846 at the northeast depression area. Arsenic (up to 43.3 mg/kg), cadmium (up to 11.8 mg/kg), chromium (up to 95.6 mg/ kg), and lead (up to 15,200 mg/kg) exceeded screening levels in effect at the time of the work. These concentrations also exceed current ADEC Method Two cleanup levels. The TCLP lead result on the sample containing total lead of 15,200 mg/kg was 17.7 mg/L. Scrap metal was found in TP-846.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Metals, Dioxins

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA	199601	199701
SI	199708	199809
RI/FS	199810	200606
RA(C)	200805	200809

RC: 200809

Four soil borings (AP-880 through AP-883) were drilled and 10 samples collected to further investigate the northeast depression area during 1998. Boring AP-880 was drilled immediately adjacent to former test pit TP-846 where lead had been detected at 15,200 mg/kg. Lead was detected at only 190 and 270 mg/kg, well less than the 1997 result. Other metal detections were less than screening levels. Also at AP-880, dioxins/furans were detected in two samples down to 7 ft bgs. Toxic Equivalents (TEQ) up to 5.51×10^{-5} mg/kg exceeded the EPA residential PRG of 3.8×10^{-6} mg/kg.

Additional background sampling and evaluation of metals was conducted in 1999. Elevated detections of arsenic, cadmium, and chromium from 1997 were resolved as background and dropped as COPCs. However, lead and dioxin/furan TEQ remained as COPCs.

Lead and dioxin/furan were evaluated further as part of the LRE. The LRE was essentially an ADEC Method Three evaluation for various sites at Fort Greely. An ACL for ingestion was calculated for 2,3,7,8-TCDD TEQ at the site using ADEC Method Three under the industrial/commercial exposure scenario. The calculated ACL (3.75×10^{-4} mg/kg) is greater than the maximum detected concentration. Additionally, leachability modeling was conducted and the results demonstrated that 2,3,7,8-TCDD would not impact groundwater at the site.

FGLY-076
REFUSE BURN PIT - SITE 89 (PAGE 2 OF 2)

Lead concentrations exceeding the ADEC Method Two residential cleanup level of 400 mg/kg were found in only one test pit (AP-846), and subsequent investigation in the immediate area was unable to reproduce the results. The results demonstrated that this lead contamination is a localized occurrence in the immediate area of the test pit TP-846. In 2004, the regulators requested that additional investigation to look for possible pesticides and PCBs at this site and requested that shallow (0-15 feet bgs) dioxin contamination be remediated. FY05 investigations revealed no PCB or pesticide contamination above ADEC Method 2. Additional dioxin/lead sampling planned for late FY06 to definitize the amount of contaminated soil that may require remediation.

CLEANUP STRATEGY

A soil removal may be needed at this site to remove the metals and dioxin/furans contamination at the surface. Following either ACL development or a removal action, a no further remedial action decision document will be completed. Land Use Controls are implemented and will be maintained.

FGLY-100
CANOL PIPELINE TANK FARM/SOUTH TANK

SITE DESCRIPTION

This site was opened in AEDB-R in the fall 2004 data call.

This site consisted of 4 ASTs and a pump station. It was operational from 1944 to 1945. The ASTs, pump house and pipelines were removed in 1974. An aerial photograph (1977) shows the northwest AST, documenting that the tank farm existed. The site is also shown on a 1971 orthopictomap. Documentation of site investigation activities at the site was not found in Fort Greely DPW or USACE files.

In October 2003, ASCG conducted a limited soil investigation. Five borings were done to a depth of 20 ft, 1 in each of the 4 bermed areas and the remaining one in the approximate location of multiple piping connections as determined from an aerial photo. One sample was analyzed at each boring (depth of highest PID reading) for GRO, BTEX, DRO, RRO, and lead. Levels exceeding cleanup occurred in two locations with DRO of 2,480 mg/kg (10 ft bgs) and 360 mg/kg (5 ft bgs). Laboratory remarks indicate that the DRO samples were characteristic of weathered middle distillate.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN: Petroleum Hydrocarbons, Metals

MEDIA OF CONCERN: Soil, Groundwater

PHASES	Start	End
PA	200310	200310
RI/FS	200410	200909
IRA	200510	200909
LTM	200910	201309

RC: 200909

In FY04, during fenceline installation weathered diesel soil contamination was found. This area is south of the CANOL Tank Farm. Some contaminated soil (approximately 100 cy) was removed at the time that it was discovered. A passive soil gas survey conducted in the summer of 2004 showed TPH contamination in the southern portion of the tank farm. Follow-on investigations in FY05 revealed significant diesel contamination in the former AST berms and subsurface diesel/gasoline contamination at the former location of a valve pit. A corrective action plan was prepared and bioremediation of the berm soils and shallow subsurface contaminated soils will be initiated in late FY06 (summer 2006). Additional investigations of the deeper petroleum contamination (to depths of 90+ feet bgs), a thin perched aquifer, and the water table aquifer are planned for when funding allows (late FY06 or FY07). Monitoring wells will be placed downgradient of the known contamination as part of this effort if technically feasible (monitoring well attempted in FY05 but abandoned when drive shoe broke (due to density/hardness of compressed sands/gravels at depth) at approximately 215 feet bgs.

CLEANUP STRATEGY

Soil removal/bioremediation of shallow/surface contamination will begin in late FY06. SVE of deeper contamination expected to be needed in the future. Groundwater monitoring

also expected to be required to confirm petroleum contamination at depth has not migrated to the aquifer.

Pending the results of the follow-up investigation during summer 2006 and the interim removal actions, an ADEC Method 3 alternate cleanup level will be developed to show any remaining exceedence of the Method 2 cleanup level do not pose a risk. A no further remedial action decision document will be completed once the interim actions are completed and the alternate cleanup level (if required) is established. Land Use Controls are implemented and will be maintained.

IRP No Further Action Sites Summary

AEDB-R#	Site Title	Documentation/Reason for NFA	NFA Date
FGLY-001	POL DRUM STG BLD 601	Environmental Sites Decision Document June 2005	199410
FGLY-002	USTS,BLDG 110	Could not prove contaminated before 1986 so moved to AEDB-CC as CCFGLY-003	199809
FGLY-003	ABOVE GROUND STORAGE TANKS (VARIOUS)	Environmental Sites Decision Document June 2005	199511
FGLY-004	BLDG 605 COLD REG TEST CENTER	No contaminants found above screening levels (SI Report, Sep 1998). Environmental Sites Decision Document June 2005	199709
FGLY-005	BUILDING 601 DUMP SITE -SITE 115	No contaminants found above screening levels (SI Report, Sep 1998). Environmental Sites Decision Document June 2005	199709
FGLY-008	LANDFILL 2-SITE 32	Site monitored and funded through FGLY-007	200003
FGLY-009	LANDFILL 3	Not eligible for ER,A funding. Now MMRP	199210
FGLY-011	LANDFILL 5	Combined with FGLY-010	199210
FGLY-012	LANDFILL 6	Not eligible for ER,A funding. Environmental Sites Decision Document June 2005	199210
FGLY-013	FORMER SEWAGE LAGOON	Not eligible for E,RA funding, no CERCLA contaminants	199511
FGLY-014	PESTICIDE STORAGE BUILDING 349	Environmental Sites Decision Document June 2005	199511
FGLY-015	BLDG 100, DRUM STORAGE-SITE 92	1998 RI – Study complete, no cleanup required	199903
FGLY-016	DRUMS OF 2,4,5 - T STD IN PRK BLDG 601	Site will be reopened under Compliance-Related Cleanup Program	199212
FGLY-017	DEACTIVATED NUCLEAR REACTOR	Site transferred to USACE Reactor Program for decommissioning	199410

IRP No Further Action Sites Summary (cont.)

AEDB-R#	Site Title	Documentation/Reason for NFA	NFA Date
FGLY-018	INJECTION WELL FOR NUCLEAR WASTE	Site transferred to USACE Reactor Program for decommissioning	199410
FGLY-020	PRTC RANGE 13	This range is part of Fort Wainwright's Donnelly Training Area and is no longer part of Fort Greely.	199210
FGLY-021	IMPAC RANGE 3	This range is part of Fort Wainwright's Donnelly Training Area and is no longer part of Fort Greely.	199210
FGLY-022	LANDFILL #7 (1970S)	Environmental Sites Decision Document June 2005	199511
FGLY-023	ACTIVE LANDFILL #8	Not eligible for ER,A funding. Environmental Sites Decision Document June 2005	199511
FGLY-024	SLUDGE DRYING BEDS	Site active, therefore not eligible for ER,A funding. . Environmental Sites Decision Document June 2005	199212
FGLY-025	INCINERATOR/BURN PIT	Environmental Sites Decision Document June 2005	199212
FGLY-026	ORDNANCE & HAZARDOUS MAT. STORAGE	Environmental Sites Decision Document June 2005	199212
FGLY-028	MIDAS SITE	This range is part of Fort Wainwright's Donnelly Training Area and is no longer part of Fort Greely.	199511
FGLY-029	UST SOIL PILE	Environmental Sites Decision Document June 2005	199609
FGLY-030	BLDG 612 ALLIED TRADES SHOP/DRUM STORAGE	1997 SI – Study complete. No contamination found	199410
FGLY-031	BLDG 615 ROADS AND GROUNDS/DRUM STORAGE	RCRA Closure – confirmed through EPA Region 10 by email 7/7/03	199410

IRP No Further Action Sites Summary (cont.)

AEDB-R#	Site Title	Documentation/Reason for NFA	NFA Date
FGLY-033	UST, BLDG 162	Not E,RA eligible (diesel contamination only)	199604
FGLY-034	UST, BLDG 210	Not eligible for E,RA funding, diesel contamination only	199410
FGLY-035	USTS, BLDG 602	Environmental Sites Decision Document June 2005	199410
FGLY-036	USTS, BLDG 606	Active facility, combined with CCFGLY-004 in Compliance Cleanup Program	199604
FGLY-037	TEXAS TOWER BLDG COMPLEX	This range is part of Fort Wainwright's Donnelly Training Area and is no longer part of Fort Greely.	199511
FGLY-038	BLDG 601 R&U YARD-SITE 49	Environmental Sites Decision Document June 2005	199903
FGLY-039	BLDG 628 BOAT SHOP/DRUM STORAGE	1999 RI – study complete, no contamination	199410
FGLY-040	BLDG 658 MOTOR POOL	No known contamination	199410
FGLY-041	TEXAS CONDO FACILITY	This range is part of Fort Wainwright's Donnelly Training Area and is no longer part of Fort Greely.	199410
FGLY-042	BLDG 606 POWER PLANT/DRUM STORAGE	Active facility, combined with CCFGLY-004 in Compliance Cleanup Program	199410
FGLY-043	UST, BLDG 159	Not eligible for E,RA since only diesel contamination	199604
FGLY-044	FT GREELY SITE INVESTIGATION	Environmental Sites Decision Document June 2005	199809
FGLY-047	EVERGREEN ROAD POL YARD-SITE 102	Combined with FGLY-006	200009
FGLY-048	BUILDING 628 DRYWELL-SITE 57	1999 RI – study complete, no contamination	200003

IRP No Further Action Sites Summary (cont.)

AEDB-R#	Site Title	Documentation/Reason for NFA	NFA Date
FGLY-049	DELTA TANK FARM	This tank farm is no longer part of Fort Greely and is being addressed under the FUDS program.	200009
FGLY-052	BLDG 318 PESTICIDE STORAGE AREA-SITE 78	Environmental Sites Decision Document June 2005	200009
FGLY-053	OLD POWER GENERATION BLDG-SITE 116	No closure documentation found	200009
FGLY-056	POL STORAGE AREA-SITE 113	Active site – moved to compliance cleanup program as CCFGLY-002	200003
FGLY-058	BLDG 340 UST SITE-SITE 77	Not eligible for E,RA since only diesel contamination	200003
FGLY-059	BLDG 160 UST-SITE 100	Not eligible for E,RA since only diesel contamination	199903
FGLY-060	FENCED SALVAGE AREA-SITE 112	Being addressed under the MMRP.	200009
FGLY-061	CHEMICAL TEST FACILITY - SITE 56	Environmental Sites Decision Document June 2005	200109
FGLY-062	ALYESKA SPILL AREA - SITE 119	Environmental Sites Decision Document June 2005	199809
FGLY-063	AERATION PAD SOUTH-SITE 87	Environmental Sites Decision Document June 2005	199903
FGLY-064	BLDG 627-SITE 52	Environmental Sites Decision Document June 2005	199809
FGLY-066	BLDG 626 UST-SITE 130	Combined with FGLY-032	199809
FGLY-070	BLDG 670 DRYWELLS-SITE 55	Not eligible for E,RA (No known contamination)	199711
FGLY-071	BLDG 144 UST-SITE 101	Not eligible for E,RA (No known contamination)	199710
FGLY-072	HELICOPTER REFUELING AREA-SITE 121	Not eligible for E,RA since only diesel contamination	199903
FGLY-073	FIREFIGHTER BURN PAD-SITE 80	2000 RI & IRA – cleanup complete	199903

IRP No Further Action Sites Summary (cont.)

AEDB-R#	Site Title	Documentation/Reason for NFA	NFA Date
FGLY-074	BLDG 320 DIESEL SPILL-SITE 72	Not eligible for E,RA since only diesel contamination	200003
FGLY-080	FIRE BURN PAN-SITE 79	Not eligible for E,RA (No known contamination)	200009
FGLY-081	LBP RISK ASSESSMENTS	Environmental Sites Decision Document June 2005	199701
FGLY-082	Skeet Range	Environmental Sites Decision Document June 2005	199701

IRP Schedule

Initiation of IRP: 1988

Past Phase Completion Milestones

1988
- RA Initiation, UST Removal FGLY 034, 035, 036, 037, June

1989
- RA Initiation, UST Removal FGLY 033, June
- RI Initiation FGLY 006, June
- RA Completion FGLY 033, September

1990
- PA Completion FGLY 049, August
- PA Initiation FGLY 049, August

1991
- PA/SI Initiation FGLY 029, August
- PA/SI Completion FGLY 029, September
- RD Initiation FGLY 029, September

1992
- PA Initiation FGLY-001 thru 029, 030 thru 043, June
- RD Initiation FGLY-002, June
- RI Initiation FGLY 037, June
- SI Initiation FGLY-001 thru 029, 030 thru 043, June
- RA Initiation FGLY-002, July
- RD Completion FGLY-002, July
- RA Completion FGLY 034, 035, 36, 037, September
- RA Initiation, Bioventing, FGLY 037, September
- RD Completion FGLY 029, September
- LTM Initiation FGLY-002, September
- PA Completion FGLY 006,007,008,009,010,011,012,016,019,020,021, October
- RI Completion FGLY 037, October
- SI Completion FGLY-002 thru 012, 016, 019, 020, 021, October
- PA Completion FGLY-001, 002, 003, 004, 013, 014, 017, 018, 022 thru 028, 030 thru 42, December
- SI Completion FGLY-001, 013, 014, 015,017,018,022, thru 028, 030 thru 42, December

1993
- RA Initiation FGLY-029, May
- RI Initiation FGLY-002, 034, May
- RD Initiation FGLY 006, October
- RI Completion FGLY 006, November
- RI Initiation FGLY 027, November

IRP Schedule

1994
- RI Completion FGLY 034, March
- PA Initiation FGLY 043, May
- SI Completion FGLY 043, May
- SI Initiation FGLY 043, May
- PA Completion FGLY 043, June
- RD Completion FGLY 006, June
- RI Completion FGLY-002, June
- RA Initiation FGLY 006, 022, 023, 028, October
- RI Initiation FGLY 013, 014, October

1995
- RI Completion FGLY 027, March
- RI Initiation FGLY 043, March
- PA Initiation FGLY 044, June
- SI Initiation FGLY 045, June
- RI Initiation FGLY 003, August
- PA Completion FGLY 046, October
- PA Initiation FGLY 045, 046, 047, October
- SI Initiation FGLY 045, October
- RA Completion FGLY 037, November
- RI Completion FGLY 003, 013, 014, 022, 023, 028, November
- RI Completion FGLY 043, November

1996
- PA Completion FGLY 044, May
- PA Initiation FGLY 048, June
- SI Initiation FGLY 044, June
- PA Completion FGLY 048, September
- RA Completion FGLY 029, September
- PA Completion FGLY 045, 047, October
- RI Initiation FGLY 019, October
- SI Completion FGLY 044, October
- SI Initiation FGLY 047, October

- **1997**
- RA Initiation FGLY 019, May
- RI Completion FGLY 019, June
- RI Initiation FGLY 049, July
- SI Initiation FGLY 049, July
- RI Completion FGLY 049, September
- SI Completion FGLY 049, September
- RA Completion FGLY 006, December
- RD Initiation FGLY 049, December

IRP Schedule

1998
- RD Completion FGLY 049, September
- RA Completion FGLY 002, September

1999
- RA Initiation FGLY 049, May

2000
- RA Completion FGLY 049, September

2001

FGLY 010
- Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Jacobs, Apr-01

FGLY 045
- Technical Memorandum, 1997 Analytical Data Review, Lockheed Analytical Services, Jacobs, Apr-01
- Limited Risk Evaluation, Jacobs, Nov-01
- Summary Report, 2000 Remedial Investigation/Removal Action, Jacobs, Dec-01

2002

FGLY-006
- Soil Evaluation and Risk Assessment, Sites: 85 South, 85 North, 133, and 112, USAED, Dec-02

2003

MULTIPLE SITES
- Cumulative Chemical and Radiological Data Report, 1983-2003, Groundwater Monitoring, USACE, Jul-03

FGLY-045
- Limited Risk Evaluation, Jacobs, Nov-03

FGLY-100
- Former South Tank Farm Soil Investigation Summary, Artic Slope Combined Group, Nov-03

2004

FGLY-075 and Multiple Sites
- Class V Underground Injection Control Inventory Report, USACE-AK District, Apr-04

FGLY-006 and Multiple Sites
- Comprehensive Evaluation of Groundwater Monitoring Program, Midwest Environmental Consultants, Jul-04

FGLY-006 and Multiple Sites
- Groundwater Sampling and Analysis Report, Shannon & Wilson, Oct-04

FGLY 017/018/019
- SM-1A 2003 Surveillance Report, General Health Physics, Inc, Mar-04

- SM-1A Reactor Waste Laydown Yard Verification Survey Report, USACE, Aug-04
- SM-1A Reactor Waste Pipeline Corridor Verification Survey Report, USACE, Aug-04

2005

FGLY-006, and Multiple Site groundwater monitoring

- 2004 Field Investigation Report, Artic Slope Technical Services (ASTS), May-05
- Groundwater Monitoring and Data Analysis Workplan, ASCG, May-05
- 2005 Installation Restoration Program Workplan, ASCG, May-05

FGLY-100

- South Tank Farm Corrective Action Plan, ASCG, Dec-05

FGLY-018

- SM-1A 2004 Environmental Surveillance Report, General Health Physics, Mar-05

MULTIPLE SITES

- Environmental Sites Decision Document, TSI, June-05

2006

FGLY-006, FGLY-100, FGLY-050, FGLY-075, FGLY-076 and Multiple site gw monitoring

- Draft 2005 Remedial Investigation Report, ASCG, Feb-06

FGLY-100, FGLY-019, FGLY-027, FGLY-032, FGLY-076 and Multiple site gw monitoring

Draft 2006 Installation Restoration Program Workplan, ASCG, May-06

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates:
200507, 200709

Schedule for Next Five-Year Review: 2010

Estimated Completion Date of IRP (including LTM phase): 2013

Fort Greely IRP Schedule

(Based on current funding constraints)

AEDB-R #	PHASE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
FGLY-006	RI/FS									
	IRA									
	RA(C)									
FGLY-007	LTM									
FGLY-010	LTM									
FGLY-019	RI/FS									
FGLY-027	RI/FS									
FGLY-032	SI									
FGLY-045	LTM									
FGLY-046	LTM									
FGLY-076	RA(C)									
FGLY-100	RI/FS									
	IRA									
	LTM									

Prior Years Funds
Funding up to FY04: $8,316K

Year	Site Information	Expenditures	FY Total
FY05		$964K	**$964K**

Total Funding up to FY05: $9,280K

Current Year Requirements

Year	Site Information	Expenditures	FY Total
FY06		$761K	**$761K**

Total Funding FY06: $761K

Total Future Requirements: **$1,680K**

Total IR Program Cost *(from inception to completion of the IRP):* **$11,721K**

FORT GREELY

Military Munitions Response Program

MMRP Summary

Total AEDB-R MMRP Sites/AEDB-R sites with Response Complete: 4/1

AEDB-R Site Types
2 Small Arms Ranges
1 Landfill
1 Unexploded Munitions/Ordnance

Most Widespread Contaminants of Concern: MEC, Metals

Media of Concern: Soil, Surface Water, Sediments

Completed REM/IRA/RA: None

Total MMRP Funding

Prior years (up to FY05):	$ 75K
Current Year (FY06):	$ 0K
Future Requirements (FY07+):	$3,854K
Total:	$3,929K

Duration of MMRP
Year of MMRP Inception: 2002
Year of MMRP RIP/RC: 201709
Year of MMRP Completion Including LTM: 204709

MMRP Contamination Assessment

MMRP Contamination Assessment Overview

Closed, Transferred and Transferring Range Report for Fort Greely was completed in 2003. This report identified four sites that required further investigation. These sites included possible lead contamination at two rifle ranges and possible buried UXO at two disposal locations. Fort Greely supported chemical munitions testing at the Gerstle River Test Site and is known to have been a staging area for material for Gerstle River Test Site. Buried drums of chemical agent decontamination fluids were found near Rifle Range 2 in the borrow pit for the missile field in 2002. The soil contaminated by the caustic fluids were neutralized in situ and some of the material was removed for off-site disposal.

MMRP Cleanup Exit Strategy

The installation plans to complete all SIs by 2008 and execute follow on phases/actions as required in the individual site cleanup strategies. Evaluate need for soil excavations for buried UXO and lead from spent small arms ammunition. Perform removals as needed and closeout sites.

2002

• Final US Army Closed, Transferring and Transferred Range/Site Inventory for Fort Greely, Alaska, TechLaw, Inc., September,

FORT GREELY

Military Munitions Response Program Site Descriptions

FGLY-001-R-01
RIFLE RANGE 1

SITE DESCRIPTION

This is a closed range consisting of approximately 14.73 acres and located in the southern portion of the cantonment area. This range was used as a rifle range from 1949 to 1982 and was found on numerous maps dating from 1950 to 1967. Additionally, this area was identified on 1996 aerial photography.

In 2000, Fort Greely conducted surface sampling of the site in anticipation of the missile field construction and the need to clear the area. All sample results were well below the state screening level for lead (1000mg/kg) and only one sample (16.2 mg/kg) exceeded Fort Greely's accepted background concentration of 15 mg/kg.

The site has been completely overhauled and a new complex has been constructed over the site. No additional investigation is needed.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Negligible Risk

CONTAMINANTS OF CONCERN: Metals

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA	200203	200305
SI	200610	200809
RI/FS	201410	201509
RD	201510	201609
RA(C)	201610	201709

RC: 201709

CLEANUP STRATEGY

No additional investigation will be conducted at this site. Site remediation is not necessary.

FGLY-003-R-01
LANDFILL - SWMU 40

SITE DESCRIPTION

This is a closed military munitions disposal site consisting of approximately one acre, believed to be located off the east end of the East-West Runway. According to a U.S. Army Base Realignment and Closure (BRAC) Cleanup Plan Report and BRAC Environmental Baseline Survey Report prepared in 1996, the Landfill-SWMU 40 site was located east of the airfield in the northeast portion of the cantonment area. It was used to store unexploded, outdated munitions. It appears that the landfill was only used in 1961 and was closed that same year.

The exact location of this site has not been determined.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Negligible Risk

CONTAMINANTS OF CONCERN: MEC

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA	200203	200305
RI/FS	201410	201509
RD	201510	201609
RA(C)	201610	201709
LTM	201710	204709

RC: 201709

CLEANUP STRATEGY

Locate site if possible and evaluate need for soil excavations for buried UXO. A geophysical survey will be conducted at the site's most likely location. Perform removals if needed and closeout site.

FGLY-004-R-01
JARVIS CREEK BURIAL

SITE DESCRIPTION

This is a transferred military munitions disposal site consisting of approximately 0.58 acres and located entirely on a state of Alaska water body within the northeast portion of the cantonment area. According to interviewees, this area was located on the southern end of the cantonment area although the munitions response map has it located near the east end of the runway. Munitions, including smoke grenades, blanks, and small arms, were disposed in this area. The interviewees recalled that in the 1970s, four to five boxes of munitions were found.

CLEANUP STRATEGY

Evaluate need for soil excavations for buried UXO. Perform removals as needed and closeout site.

STATUS

REGULATORY DRIVER: CERCLA

RAC SCORE: Moderate Risk

CONTAMINANTS OF CONCERN: MEC

MEDIA OF CONCERN: Soil, Surface water, Sediment

PHASES	Start	End
PA	200203	200305
SI	200610	200809
RI/FS	201410	201509
RD	201510	201609
RA(C)	201610	201709

RC: 201709

MMRP No Further Action Sites Summary

AEDB-R#	Site Title	Documentation/Reason for NFA	NFA Date
FGLY-002-R-01	Rifle Range 2	Site transferred to Fort Wainwright	2006

MMRP Schedule

Initiation of MMRP: 2002

Past Phase Completion Milestones

2003
• PA, all sites, May

Projected ROD/DD Approval Dates: Unknown

Projected Construction Completion: 2017

Schedule for Five Year Reviews: Unknown

Estimated Completion Date of MMRP including LTM: 2047

Fort Greely MMRP Schedule

(Based on current funding constraints)

AEDB-R #	PHASE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
FGLY-001-R-01	SI									
	RI/FS									*201509*
	RD									*201609*
	RA(C)									*201709*
FGLY-003-R-01	RI/FS									*201509*
	RD									*201609*
	RA(C)									*201709*
	LTM									*204709*
FGLY-004-R-01	SI									
	RI/FS									*201509*
	RD									*201609*
	RA(C)									*201709*

MMRP Costs

Prior Years Funds
Funding up to FY04: $75K

Year	Site Information	Expenditures	FY Total
FY05		$0K	**$0K**

Total Funding up to FY05: $0K

Current Year Requirements

Year	Site Information	Expenditures	FY Total
FY06		$0K	**$0K**

Total Funding FY06: $0K

Total Future Requirements: **$3,854K**

Total MMR Program Cost *(from inception to completion of the MMRP):* **$3,929K**

Community Involvement

The RAB was formed in September 1996 and meets quarterly. No TAPP has been requested. Community Relations Plan was last updated in1998.